JOURNAL

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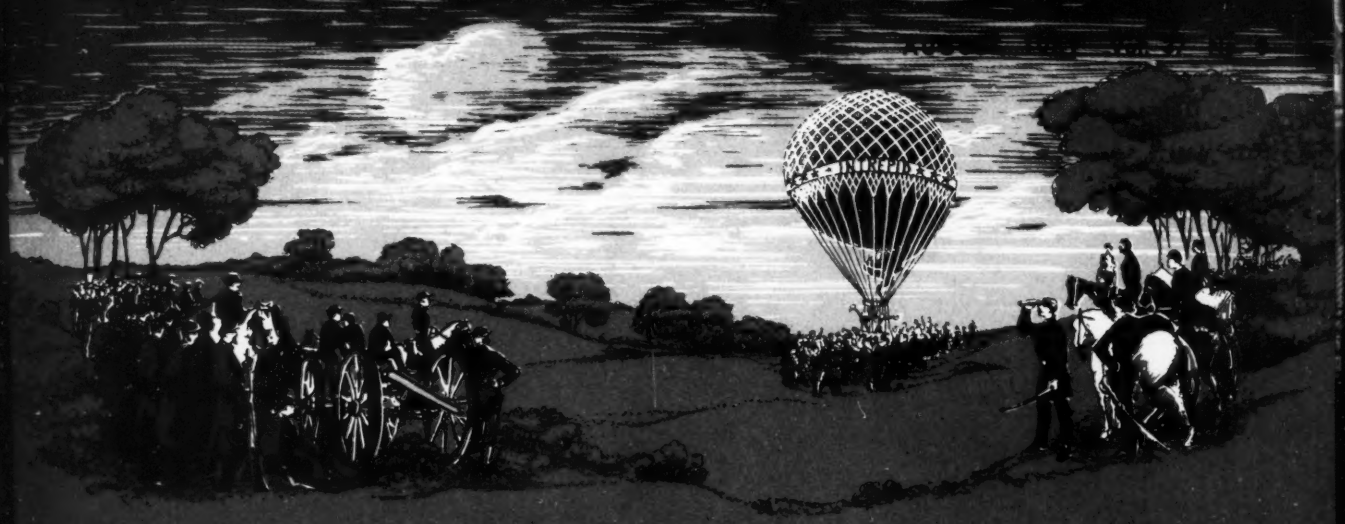

Sharon Takes No Chances

Showdown on Inflated Claims

The Code Way to Stop Fires

Our Off-Job Accident Toll

How to Dress an Astronaut

A Great Day for Grand Cooks

JOURNAL
OF AMERICAN INSURANCE

AUGUST, 1961 Vol. 37 No. 8

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OUR COVERS

Space operations of the U.S. officially started 100 years ago this month with activities memorialized on our front cover. By authorization of President Lincoln, Thaddeus S. C. Lowe, scientist, inventor and aeronaut, entered upon his first official duties as the organizer and head of the Union Army's balloon corps on August 5, 1861. His *Intrepid*, shown about to ascend a few weeks later near Vienna, Virginia, to spy out Confederate positions, was to become the best known of the Federal balloons.

Protective but peaceful exploits in ballooning never envisioned by Lowe even in his headiest days are in the offing on the 500-acre site at the southwest edge of Boulder, Colorado (back cover), where the National Center for Atmospheric Research is to have its buildings and laboratories. Included in the site is the 28-acre mesa atop Table Mountain. Some research is already underway in temporary quarters. In *Annals*, Page 25, there is a preview of this newest venture in doing something about the weather and other unsolved mysteries of the atmosphere out there in space. ⊙

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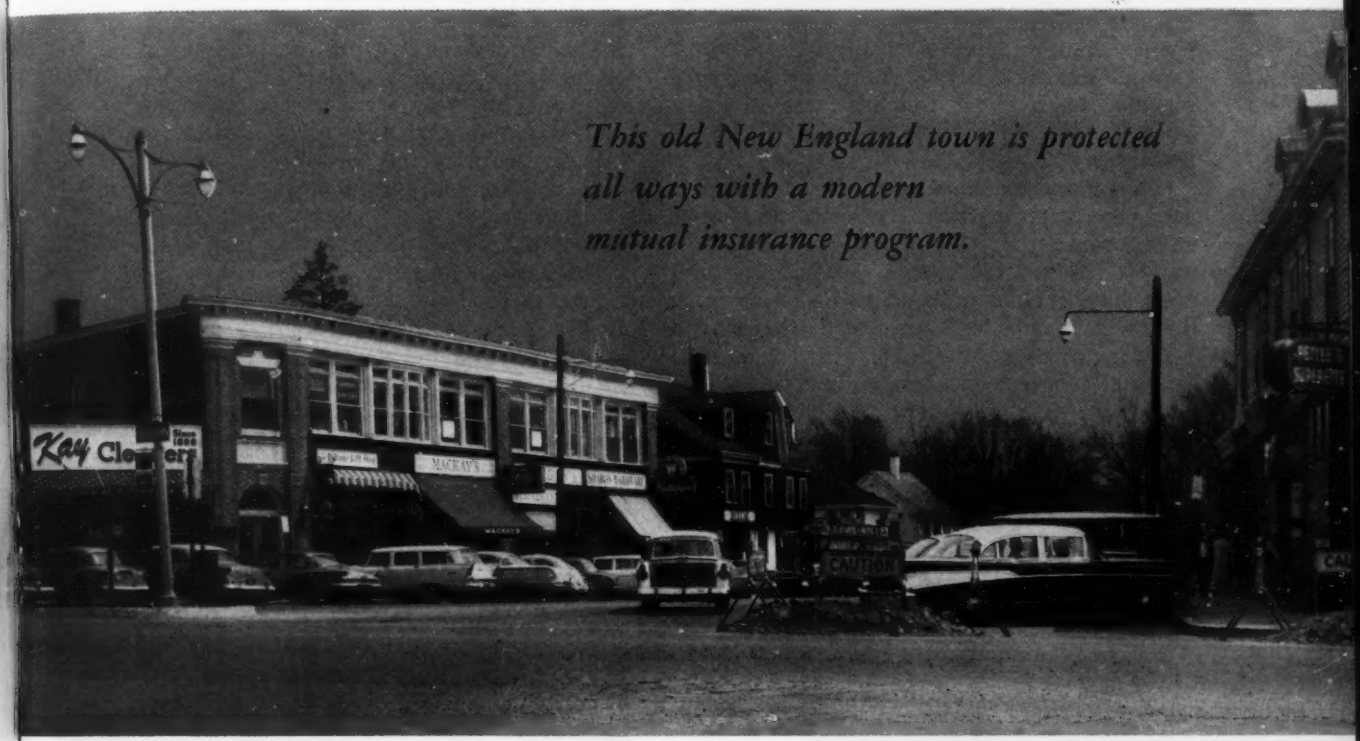
PEACEFUL, PRUDENT AND PROVIDENT



This old New England town is protected all ways with a modern mutual insurance program.

FROM THE CAMPING GROUND in Sharon, Massachusetts, King Philip, sachem of the Wampanoag Indians, took off with a war party on the night of February 20, 1676, headed for Medfield, eight miles away. This was another raid in King Philip's War against 12 New England towns.

That night's raiding is described in this contemporary account: "Three hundred of them set upon the Town of Maidesfield, and burnt at least fifty Houses, killed and took divers of the Inhabitants, being all surprised before they were aware: For the subtle Indians near Daybreak, came about the Houses privately and lay close to the Fences; And as People came out of their Houses shot them down."

King Philip's War ended August 12, 1676, when the villainous sachem was shot in a swamp near present-day Bristol, Rhode Island. Landmarks and legends of Indian raids are still part of New England lore; in Sharon children still search for King Philip's Cave, hideout of the hunted chief.

Sharon and surrounding towns long ago turned their attention from Indian defenses to more modern protective measures typified by a municipal mutual insurance program covering the town's property and risks. Today the protection of the value of life and property is complicated by such problems as sewage disposal, school costs, highway maintenance and zoning. For Sharon, as for most U. S. municipalities, these community responsibilities have been compounded by the population boom since World War II. Once a somnolent health resort, Sharon doubled its size from 1950-60 and now numbers

11,000 residents. It has become an ideal suburb for those who work in Boston or in Providence, Rhode Island.

A measure of Sharon's recent growth is the town school system of eight schoolhouses, half of them built during the past 10 years. Townspeople, though they carefully watch municipal expenditures, have always generously supported schools. Sharon, for example, was the first town in Massachusetts to provide free school textbooks.

Other municipal services have also kept pace with population increases. Though the town is administered from a picturesque town hall built in 1883, its fire and police departments have up-to-date equipment housed in modern brick buildings. Sharon is protected by about two dozen firemen who turn out on call to work with four full-time officers. Twelve policemen have help from four radio clerks and emergency support from some 20 Civil Defense workers. The public works department, operating from a highway garage, must maintain 110 miles of road. And Sharon's water department manages three separate pumping stations.

A board of three selectmen oversees all town services, including maintenance of a town bathing beach and, characteristically, upkeep of graves of Revolutionary War soldiers.

This broad scope of town services creates a horde of hazards and liabilities that threaten the value of lives and property and the sufficiency of the treasury. Voters of Sharon recognized this last year when they appropriated in town meeting style $42,800 for insurance.

Purchased with this insurance appropriation were policies that provide fire and lightning coverage on the town's eight schools, four municipal buildings and three pumping stations, and the contents of all of them. Also in the insurance program is public liability coverage against mishaps on town property or damage caused by municipal employees; and workmen's compensation for 230 Sharon employees except firemen and policemen, excluded from the Massachusetts Workmen's Compensation Act.

Sharon, settled about 1650 and incorporated in 1775, conducts its town business in this neat Victorian-style town hall. Mutual insurance protects 19 town-owned buildings.

Town Clerk Arthur E. Collins, (center) finds an amusing passage in "Rebellion Record of 1861," a chronicle of town's part in Civil War. Clerk is one of 250 town employees.

Located on highest land in eastern Massachusetts, Sharon has a bird sanctuary and is now acting to preserve a "green belt" area. This municipal garage is typical of old town's modern facilities.

Town-owned motor vehicles and their drivers are protected by liability and comprehensive fire and theft coverage.

Sharon's insurance coverages, which are representative of those needed by huge cities and small hamlets alike, were recommended to town voters by the Selectmen's Insurance Committee. The committee earned this accolade in Sharon's town report: "One more group is deserving of mention, and that is the Selectmen's Insurance Committee. Upon their recommendation, it was decided to place most of the Town's insurance with mutual companies and the Town's buildings and contents under the so-called Public and Institutional Property Plan. Both changes should result in substantial savings for the Town."

By insuring with mutual companies, Sharon joins thousands of municipalities that take advantage of the protective services and the generally lower cost of mutual insurance. For more than a century, public bodies have been mutual policyholders. Today mutual insurance is available to municipalities in all but two states. Only Texas and Louisiana question the

Present-day municipal services involve hazardous tasks such as welding work done here by a Sharon employee. Risks are minimized by mutual insurance loss prevention service to insureds.

Rapid expansion of town road system has forced Sharon to acquire equipment to maintain 110 miles of roadway. Repairing street sweeper is task of town's public works garage mechanics.

Photos by Levitan, Sharon, Massachusetts

Civil War soldiers are honored by this monument. Plaque honors Deborah Sampson Gannett, woman soldier of the Revolution, who was discharged by General Washington when ruse was discovered.

right of public bodies to purchase mutual insurance, and the issue remains open even in those states.

Extensive loss prevention services of mutual insurance are especially important to municipalities, whose services often involve extra-hazardous operations. To assist towns in reducing fire and liability risks, mutual insurance engineers regularly inspect facilities and work procedures. Their loss prevention recommendations frequently include suggestions concerning heat, light and power appliances in municipal buildings; elimination of special hazards in garages, and addition of fire protection devices and exits in schools and public buildings. An engineer from the Boston office of Kemper Insurance regularly checks Sharon's 19 publicly-owned buildings and consults with town officials about risk reduction.

New Fire Insurance Form Put to Good Use

Another insurance aid to Sharon and other towns is the public and institutional property plan, a new fire insurance form that provides special coverages and rates for property owned by public, religious, charitable and educational bodies. ("Newest Thing on the Campus," JOURNAL OF AMERICAN INSURANCE, July, 1961). Offering blanket protection to all real and personal property of the insured, the new form contains coverage extensions and rate adjustments of special advantage to municipalities. Those cities and towns whose property is rated according to published schedules may gain a 25 per cent credit on the fire portion of the premium; 40 per cent credit on extended coverage, and 50 per cent on endorsements for vandalism and malicious mischief or sprinkler leakage. These credits vary slightly in various rating jurisdictions, but the PIP plan is certain to reduce premiums for towns under its protection.

To qualify for PIP coverage, a municipality must develop a total premium of at least $1,000 annually and permit periodic inspections by rating organizations. It must be "interested in maintaining good standards of loss prevention and evidence a co-operative attitude toward recommended improvements" through quarterly self-inspection. As preferred risks, towns gain rates not offered to commercial enterprises.

Of special importance to municipalities is a PIP clause that gives limited insurance up to $5,000 for research and other expenses necessary to replace or restore books, abstracts and other records. Another desirable provision covers employees' personal property up to $5,000, with a limit of $500 per employee. Property acquired by the insured valued as high as $100,000 is covered automatically for 180 days. Also included in the PIP form is an improvements and betterment clause; a broad consequential loss clause; removal coverage; an agreed amount coverage, and a $100 loss deductible clause applicable to all perils except fire and lightning with an aggregate of $1,000 for each occurrence.

Even the broad coverage of the PIP plan may not adequately protect cities with such special services and installations as publicly-owned transit systems, radio towers, welfare agencies and the like. Special property and liability coverages needed in each municipality must be determined by local officials with the advice of insurance specialists. Such advice, given in the spirit of public service, was available to Sharon as it is to many municipalities.

But because state statutes don't usually require that bids be taken on municipal insurance programs there is little uniformity in the way town insurance is purchased. Some permit a single employee or elected official to distribute insurance among local agents. Others turn distribution over to an agents' association which collects a single premium and issues a single set of policies, but splits premiums proportionately among members. Yet other towns let insurance contracts by bids, an increasingly popular trend that has resulted in additional municipal business for mutual companies and additional savings for municipalities.

Town Officials Alert to Insurance Needs

Whatever the method of buying insurance, a veteran company executive says, "It has been our experience that town managers, selectmen, mayors and aldermen all have a vital interest in municipal insurance and have attempted to work out intelligent programs for their municipalities."

Insurers, for their part, are eager to carry municipal programs because they offer not only large premiums but prestige for agents and their companies. "Most folks feel," says one observer, "that if a company is good enough to insure the town and its schools, it's good enough to insure autos and homes." ⊙

CHEERS FOR THE COAST GUARD

Now 171 years old, this protective agency has a monumental record in rescues and service.

SMUGGLERS WERE PATRIOTS in the days of the American Revolution, when colonials considered it honorable to evade import duties imposed by the British Parliament.

Even signers of the Declaration of Independence, John Hancock and Samuel Adams to name just two, were engaged in this cloak-and-dagger commerce. After the Revolution the art of smuggling had become so much a habit to so many that it threatened the economy of our then infant nation.

For this reason, on August 4, 1790, President George Washington signed a bill authorizing the construction of "ten boats for guarding the coast against smugglers." This historic signing 171 years ago was the start of what is presently known as the United States Coast Guard.

It was Alexander Hamilton, Washington's Secretary of the Treasury, who had insisted upon a coastal patrol to insure collection of tonnage dues and import duties from vessels entering U. S. waters. Hence Hamilton is the acknowledged father of the Coast Guard.

Today the history-laden agency has more than 60 distinct classes of ships and 20 different types of aircraft patrolling the Atlantic and Pacific coasts, as well as most major inland waterways. Its duties, aside from the original assignment to discourage smugglers, cover a diverse range of marine activities but center primarily on the preservation of life and property. Thus the agency has common purpose with mutual insurance in preventing losses and protecting the value of life and property.

Last year, for example, coast guardsmen rescued 2,300 persons who were in peril at sea and saved more than $1.1 billion worth of ships and cargo. With annual appropriations of about $300,000, taxpayers are getting their money's worth. A commander of the Coast Guard told the JOURNAL: "We feel that we're the only service which is paying its own way."

From its very beginning as the Revenue Marine, the Coast Guard has paid its way. For nearly eight years after its founding, the "ten boat" fleet served as the nation's only navy. Later, in the early part of the 19th century, coastal cutters warred against pirates and slave ships.

During the Civil War divided loyalties caused a number of seamen to resign and join the Confederacy. At the outbreak of the war five cutters in southern waters were seized by rebels.

In World War I the Coast Guard suffered losses greater, in proportion to its size, than any

of the other armed forces. The agency reached its peak strength in World War II with 802 vessels (of more than 65 feet) and 171,000 mariners. Nearly 600 of these heroic seamen lost their lives in battles from Anzio to Iwo Jima.

On August 4, 1949, exactly 159 years after George Washington signed the antismuggling bill, Congress made the Coast Guard "a military service and a branch of the armed forces of the United States at all times. The Coast Guard shall be a service in the Treasury Department except when operating as a service in the Navy."

During peacetime, one of the Coast Guard's most vital functions is that of search and rescue. In the 90 years since cutters and lifeboat stations were manned by guardsmen, they have saved hundreds of thousands of lives and many billions of dollars in property. This requires putting men to sea during the worst possible weather conditions. A veteran seaman explained: "All I know is that the regulation book says you have to go out. It doesn't say anything about coming back."

In addition to search and rescue operations, the duties of the Coast Guard include maintaining weather patrols in the Atlantic and Pacific, gathering data for the U. S. Weather Bureau. The Coast Guard Ice Patrol has the chilling chore of hunting shipwrecking icebergs in the North Atlantic. Based at Argentia, Newfoundland, the Ice Patrol watches 45,000 square miles of ocean from February to August. During the time that the Coast Guard has been performing this duty, not a single ship has been lost through collision with an iceberg.

Other major navigational aids for mariners which are manned and maintained by Guardsmen are the thousands of buoys, fog signals, radio beacons, lightships and lighthouses guiding ships past shoals and rocks through heavy fogs and darkness. These aids are not only a welcome sight to shippers but to marine insurers as well.

Before the wonders of electricity, ships had to rely on bonfires or blazing barrels of pitch that were placed along coastal headlands. Shipwreckers would duplicate these makeshift beacons at isolated points of coastline in hopes of beaching vessels and then looting them.

Still another undertaking of the modern day Coast Guard is enforcement of the many federal laws relating to vessels. Regular inspections are made to see that these laws are observed. Here the agency works closely with the insurance industry in drawing up water safety pamphlets listing practices of good seamanship on oceans, rivers and lakes.

Through constant Coast Guard surveillance, merchant vessels are safer and therefore insurable. Blueprints of civilian vessels must be approved before construction is started. Coast Guard inspectors are on hand through all stages of merchant shipbuilding. Such strict enforcement, according to an agency spokesman, gives the United States shipping industry the highest safety standards in the world. Our vessels, he added, are the safest on the seas.

U.S. Coast Guard Photos

Before the Coast Guard started its famed Ice Patrol, ocean vessels were claimed regularly by drifting icebergs in the North Atlantic. Today the teamwork of Guard's reconnaissance planes and cutters has all but eliminated the iceberg threat.

Even for smaller watercraft, certain laws and regulations requiring safety equipment, numbering, safety procedures and manning by qualified crews are administered and enforced by the Coast Guard. Just recently the agency was called upon to develop regulations covering ships powered by nuclear energy and those handling radioactive cargoes. Beyond meeting the special nuclear requirements, these high-pow-

Cutter "Gresham," a 311-foot seaplane tender, takes a tour of duty along the Pacific coast. From California home port, this former Navy ship not only participates in search and rescue work but serves as a floating ocean weather station.

Boston Light, located on Little Brewster Island in Boston Harbor, is America's first lighthouse and just one of many navigational aids manned by guardsmen. First lighted in 1716, Lighthouse now has air siren and light visible for 16 miles.

Regular inspections of our ocean liners and safety instruction for liners' personnel are major duties of guardsmen. Proper technique of donning a life-jacket is practiced here by stewardess under the scrutiny of Coast Guard commander.

Boating party on Lake of the Ozarks, Missouri, is stopped by Coast Guard patrol. Regular checks are made by guardsmen to see that boats have required safety equipment. Agency is also on 24-hour call to assist pleasure craft in distress.

ered ships must also conform to the Coast Guard's "Marine Engineering Regulations and Material Specifications" manual governing construction of conventional vessels.

These many and varied obligations are a far cry from the Coast Guard's early days when crews of "respectable character" were sought to man the two-masted cutters, each authorized to carry a master, three mates, four mariners and two boys. The incentive for some of those first guardsmen was the rations, which included a half gill of rum, brandy or whisky.

Today's Coast Guard doesn't have to search very far to find its leaders, most of whom are graduates of the Coast Guard Academy in New London, Connecticut. Here young men are trained to carry out the work which through the years has become so necessary to our nation's well-being. In time of war the Coast Guard offers to the Navy its special breed of tough, self-reliant seamen. During peacetime these same men make up the country's foremost agency for maritime safety and law enforcement. ⊙

Capsule chair in Survival Car II turns so that passenger may face rear. Lap belt, shoulder harness protect occupant against deceleration force in accidents.

STYLED FOR SURVIVAL

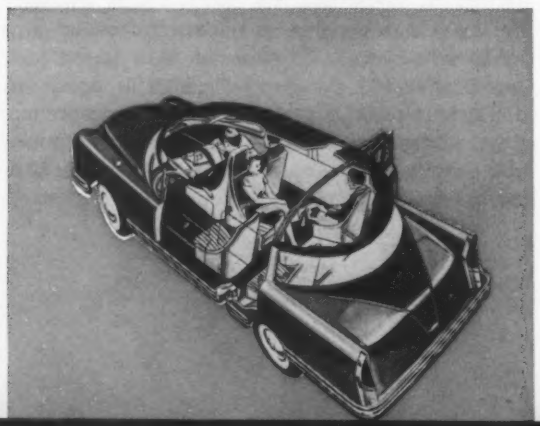
Liberty Mutual's Survival Car II contains 24 safety features to save lives of drivers, passengers.

THOUSANDS OF AMERICANS will soon see a light gray 1960 Chevrolet Bel Air four-door sedan with Massachusetts license number 241-003. To casual observers the car will appear much the same as some 250,000 '60 Chevys of the same body style. But close inspection will reveal that this car has been refitted to save lives.

It is the Liberty Mutual Survival Car II, the safest car ever driven on our roads. Its 24 key safety features, if adopted by auto manufacturers, would save as many as three-fourths of the 24,800 occupants of passenger cars who die in traffic accidents each year. One million disabling injuries suffered by drivers and passengers would also be reduced by 75 per cent, experts say.

To effect this saving of lives and reduction of injuries, Liberty Mutual Insurance Company has invested more than $100,000 in the development of Survival Car II. The safety car also required 11 years of concentrated work by Frank J. Crandell, Liberty's chief engineer.

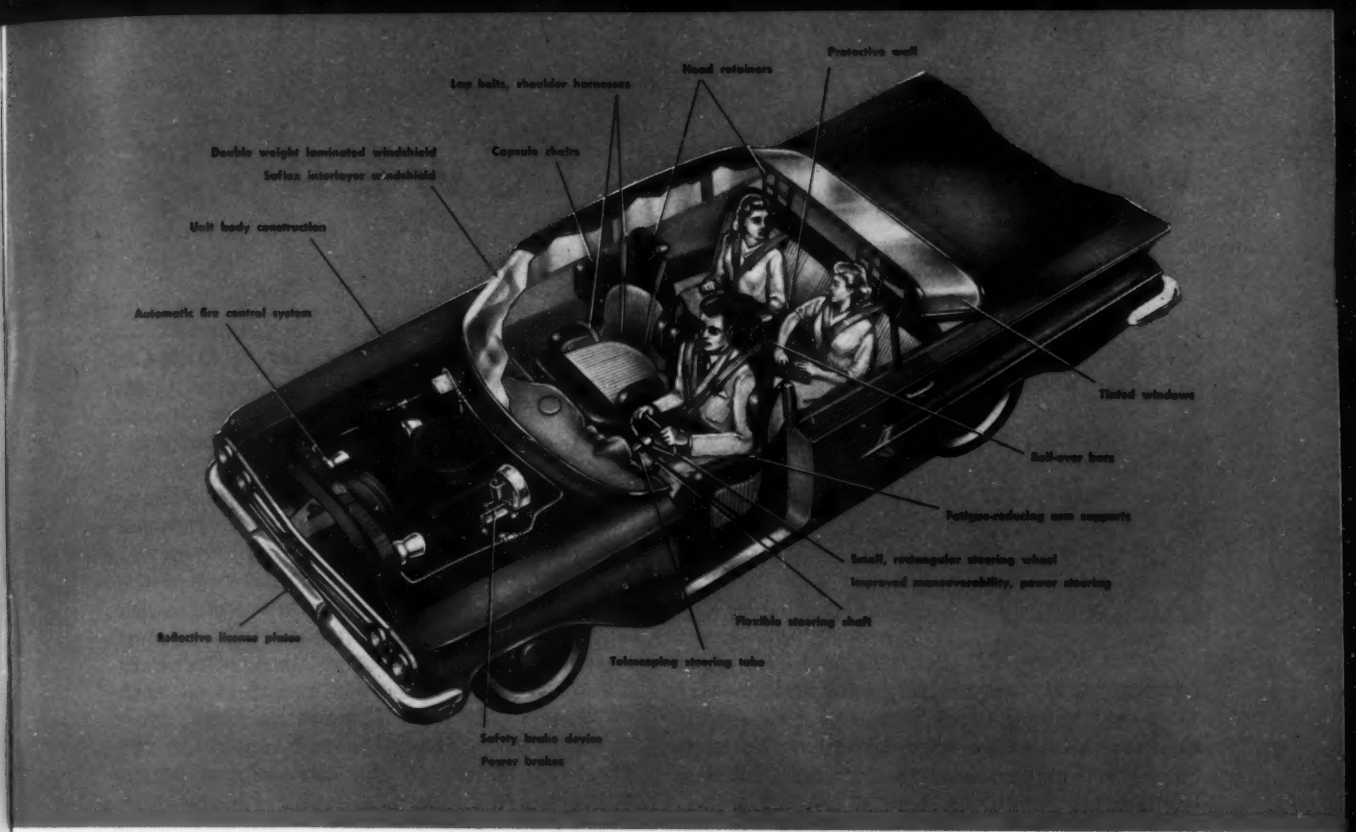
Forerunner of new safety car is Survival Car I with centered driver's seat, steering levers, bucket seats and extra-large interior. Several of its 50 safety features are now standard.



Crandell's product, now complete and available for nationwide showing, proves that relatively minor design changes can produce a much safer automobile. In this respect Survival Car II is a great improvement over its forerunner. Survival Car I, unveiled in 1957 and now displayed at Chicago's Museum of Science and Industry, is a stylistic hybrid built by Liberty Mutual and Cornell University's Aeronautical Laboratory. It cost $96,000, but the new model was converted for only $10,000, mostly labor costs for special parts. Crandell estimates that assembly line models with Survival Car safety features could be produced for as little as $50 extra per auto.

Basic in the design of Survival Car II is "occupant packaging," a concept that protects passengers from striking auto interiors with great force, the prime cause of deaths and injuries. Protective packaging is a special problem in current model cars because each passenger has clearance of only 27 inches; clearance in Survival Car I was 45 inches per person. Crandell solved this difficulty with capsule seats that will securely contain the driver and passengers even in head-on collisions at 30 mph.

Survival Car II seats will withstand impacts of as much as 30 times the force of gravity, a force three times the limits of airplane seats. Additional protection for occupants is provided by head support cushions to prevent whiplash



Cutaway of Liberty Mutual's Survival Car II shows important design considerations it incorporates. Adoption of features by auto makers would sharply reduce traffic toll.

injuries, arm rests, restraining lap belts and shoulder harnesses, which will prevent serious injury in impacts equivalent to 5,000-pound loads. Seat belts, pioneered by Liberty Mutual engineers, would save 5,000 lives annually if they were universally used.

Another basic advance in the new Survival Car is the safety steering mechanism, including a flexible shaft that buckles in crash situations, and a telescoping steering tube that prevents injury to the driver's chest and face. The Survival Car's steering wheel is rectangular to protect kneecaps and of reduced diameter to improve visibility. Those who have driven Survival Car II say that the small, squared steering wheel is the car's only disconcerting aspect, but most become accustomed to it in 25 driving miles.

Other safety features include unit body construction with a protective shield for rear seat passengers; roll-over bars on the capsule seats; carbon dioxide fire control system in the engine compartment; safety brake permitting two-wheel braking; laminated, tinted windows that reduce eye fatigue and heat load. Tires are scored to improve traction. And most interior handles are replaced with buttons; dashboard dials and knobs have been shielded.

An ingenious aid to tired drivers is the Alert-O-Matic. By flicking a switch, the driver causes his horn to blow automatically every minute unless he heads it off with a dashboard switch. This game gives the driver something to do every minute and the horn will wake him if he dozes.

Engineer Crandell summed up his Survival Car before the House of Representatives subcommittee on health and safety this way, "If the American driver is going to continue to play highway hari-kari, perhaps we can increase his chance of surviving by helping him despite himself."

Though Crandell's creation has successfully undergone 10,000 miles of road tests, it faces its stiffest test under the critical eyes of the motoring public at exhibitions throughout the country. Patrolman Tom Andersen of Wilmette, Illinois, demonstrated the Survival Car for suburban shoppers recently and reached this verdict: "My wife and I have been driving it for a week and both of us would be happy to have it, just as it stands." ⊙

WHO WANTS LOWER

Policyholders can help reduce costs by militating against exorbitant personal injury claims.

CONNECTICUT consistently ranks at the top of the list among states with exceptionally low highway death rates. Yet auto owners there pay among the highest liability insurance rates in the land.

This paradox points to a hard, cold fact: In one state after another, a rising flood of personal injury claims is washing out the insurance savings that motorists believed would be forthcoming with improvements in traffic safety records.

The catch is that while highway death rates have been dropping, the number of reported accidents and injuries has been rising sharply. Safety officials frankly don't know whether the figures show an actual increase in accidents, or merely reflect better reporting methods and a growing tendency on the part of accident victims to consider bumps and minor sprains as "injuries."

Whatever the explanation, there is no doubt that injury claims are driving up the cost of auto liability insurance, and other types of liability insurance as well.

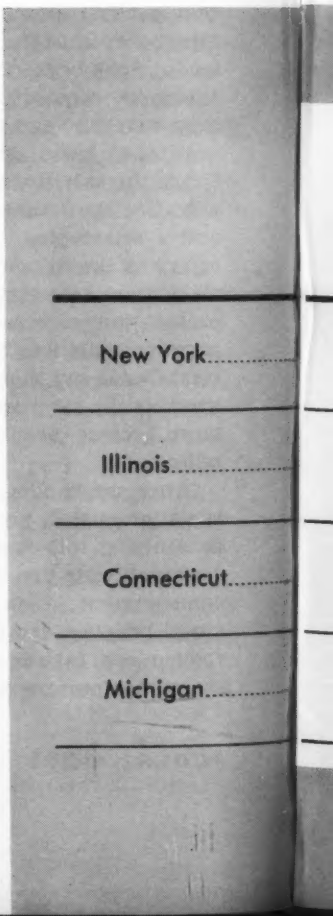
"Everybody's insurance-conscious nowadays," says George Lomberg, who operates the carrousel in New York's Central Park. "People used to fall down, brush themselves off and go home."

Now the tendency is to file a claim against the offending person's insurance company on the theory that nobody will ever miss the money.

Some of these claims are out-and-out frauds, perpetrated by professional swindlers. Among these claim fakers is the flop artist, who deliberately bumps against a slow-moving car or truck and falls groaning to the pavement. One such phony already had collected $10,000 in personal injury settlements and had suits and claims pending for $30,000 more when arrested in Chicago. The same attorney represented him in 10 of his fraudulent claims.

Another common swindle is the faked auto accident, often staged by rings that make regular circuits around the country. They usually specialize in rear-end collisions at out-of-the-way intersections. By prearrangement, car No. 1 stops and car No. 2 bumps into it hard enough to cause some property damage but no injuries. The drivers get out and start an argument, and driver No. 1 summons police. No. 2 concedes his negligence by such remarks as "the gas pedal stuck" or "my foot slipped off the brake."

At an appropriate moment, occupants of the car in front develop severe pains, often falling to the ground in faked agony and demanding that



Claims, not accident rates, determine the insurance premiums paid by auto owners. New York's premiums are twice as high as Michigan's, even though the latter's fatality rate is highest of the four states. Reason: New Yorkers file more claims and collect more money per claim. In Connecticut, insurance costs are pushed up by bigger payments per claim. Note that property damage claims show much less variation. All figures are for 1957 to allow time for reporting of delayed claims.

INSURANCE RATES?

an ambulance be called. The more skillful among them can fool most examining physicians, especially with such favorite complaints as the sprained back and the recently popular "whiplash" injury.

In one macabre plot uncovered by insurance investigators in California, Jerome A. Rader was about to allow an accomplice to break his arm, shoulder, leg and two or three fingers when police moved in and arrested them. The accomplice, Horace E. Adkinson, planned to sideswipe Rader's empty car over a cliff, then break Rader's limbs with a brick and let him struggle down to be found in the wreckage. The victim would then sue Adkinson and they would split the settlement made by his insurance company.

Insurance records showed that Rader and his wife already had collected $20,000 from 34 fraudulent injury claims, though none was quite as imaginative as the last. Although Rader was finally caught and put in jail, investigation costs in such cases run into the thousands, thus adding to the drain on insurance dollars.

Even so, all the con men put together do not begin to approach the damage done by reasonably honest people who would not dream of cheating the corner grocer or taking part in a shady business deal. Yet all too many of them are willing to "soak the insurance company" when serving on a jury, and to engage in a little padding and faking when they are involved in a mishap and see a chance to collect more than their actual losses.

As might be expected, this tendency is more pronounced in claims for personal injuries than in claims for property damage. The latter usually have a dollar value that reasonable men can agree on, without emotional involvement. Injuries are far more subjective and difficult to put a price tag on. After all, how much is pain really worth?

In practical terms, it is worth whatever a

SIZE AND FREQUENCY OF CLAIMS DETERMINE AUTO INSURANCE RATES

Number of claims paid per 100 insured cars		Average payment per claim		Number of traffic fatalities		Average cost of auto liability insurance
Personal injury claims	Property damage claims	Personal injury claims	Property damage claims	Per 100,000,000 vehicle miles	Per 10,000 registered vehicles	$5,000/10,000/5,000 basic limits
4.53	9.36	$923	$124	5.0	4.59	$82.74
4.00	10.06	$788	$124	6.2	5.96	$69.89
3.41	9.11	$1,050	$117	3.2	2.88	$69.87
1.83	10.03	$626	$115	5.3	4.78	$40.38

Sources: Mutual Insurance Rating Bureau, National Bureau of Casualty Underwriters, National Safety Council, U.S. Bureau of Public Roads

skillful lawyer can persuade a jury to say it is worth. Even though only one or two per cent of all claims ever actually go to trial, the awards handed down in these few cases have a strong influence on settlements made in all other claims, whether they become lawsuits or not.

Although they do not make newspaper headlines, the multitude of small claims that are inflated beyond their true value have their effect on insurance costs as well as the relatively infrequent award that runs into five figures.

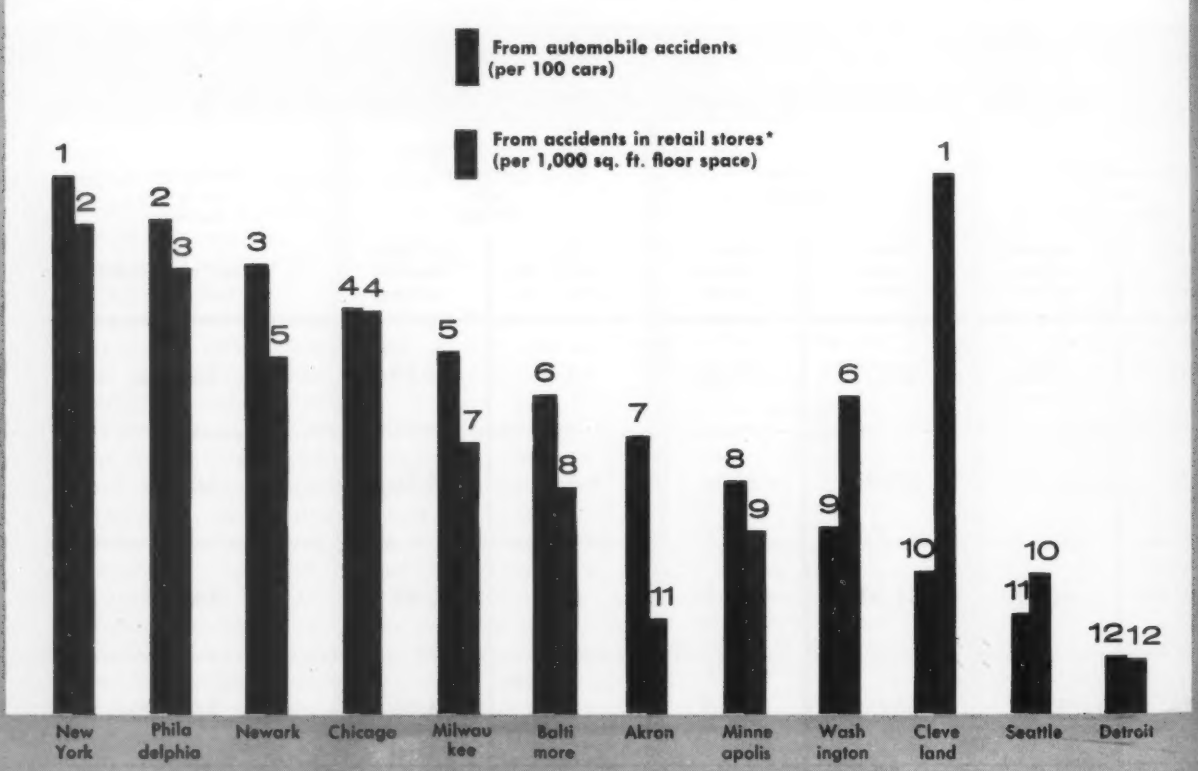
In addition, a few unscrupulous lawyers sometimes try to "build up" a minor claim into a big one by making an astronomically high demand. C. L. Morris, president of the Illinois Insurance Information Service, describes this technique as a "kind of courtroom numbers game."

"The man or woman who someday will sit on a jury reads about these boxcar figures and subconsciously gets the impression that a hundred thousand or so dollars seems just compensation for a sprained back," Morris adds. "Then, when a plaintiff lawyer dreams up a demand for $1,500,000 when he files suit, the juror debates how he can award less than $100,000 even though the actual damages seem to add up to about $875."

Insurance men blame many unjustified personal injury claims on abuses of the contingency fee system, whereby an attorney agrees to represent an allegedly injured person for a share of the proceeds—usually 25 to 50 per cent of the insurance settlement or court award. In theory, this system is designed to assure a penniless

EVIDENCE OF "CLAIM CONSCIOUSNESS"

(Twelve cities ranked according to frequency of bodily injury claims in two independent fields)



Zeisel, Kalven and Buckholz: Delay in the Courts

*Five-and-ten-cent stores, retail markets, meat, fish and poultry stores, department stores. Each store type is first related to its own national average claim frequency and the deviations from it are then averaged for the final score. From the combined statistics of companies reporting to the Mutual Insurance Rating Bureau and the National Bureau of Casualty Underwriters.

plaintiff of his right to be represented by a competent lawyer. In practice, it is almost universally used even when the plaintiff is financially able to hire a good attorney.

One result is that potential plaintiffs are encouraged to file claim even on flimsy grounds, on the theory that they have nothing to lose. The attorney gets nothing if he loses the case. Lawyers accept these often-unjustified cases in much the same spirit as the claimant, knowing that even a poor case has a certain "nuisance value" to an insurance company. Rather than spend a large amount of their policyholders' money to investigate every claim, hire defense attorneys and set up the bookwork—especially when there is no telling what a jury might do—some insurers often settle such claims for relatively small amounts just to get them off the books. This also is an abuse that most companies are trying hard to correct, even though it costs them more money in the short run to fight such claims than to pay them off.

The size of the job to be done is indicated by a judicial investigation currently underway in New York City, which has turned up evidence of widespread instances of ambulance chasing, padded medical bills, exaggeration of injuries and other shady dealings which have defrauded insurance companies of millions of dollars. More than 20 lawyers already have been disbarred, several physicians have had their medical licenses revoked, and scores of other members of both professions are being investigated.

Aaron E. Koota, chief of the Rackets Bureau of Kings County District Attorney's office, described how the system works in Brooklyn:

"Some doctors fake one or two visits into 40 or 50 visits, and describe a few bruises or scratches as horrific injuries. Some never even see the patients whose injuries they describe and for which they present bills. Some just send their stationery to the lawyer and allow him to fill it in as he pleases."

Significantly, the motoring public has become aroused enough in a few communities to take action against the abuses that have driven up their auto insurance rates. In Miami, a citizens' committee of local businessmen has brought about the prosecution of several claim crooks and has exposed the shady dealings of a few doctors and attorneys who specialized in inflating personal injury claims.

Where the Money Goes in Personal Injury Settlements

(Based on a sample of 3,000 claims in New York City)

Amount recovered	Percentage of total amount paid	Percentage of total claims	Number of claims in each size category
Less than $1,000	22%	70%	2,110
$1,001 to $3,000	24%	21%	624
$3,001 to $25,000	40%	8%	251
More than $25,000	14%	.5%	15

Columbia University Project for Effective Justice: Accidents, Money and the Law

Average amounts paid in all personal injury claims appear modest because of the large number of small claims. But note that a few large claims drain off 54 per cent of the money. Thus runaway verdicts can greatly influence insurance costs.

One of the most thorough cleanup jobs yet attempted is being conducted in Pennsylvania, where the State Chamber of Commerce is investigating possible cases of fraud in the filing or handling of insurance claims throughout the state. The American Mutual Insurance Alliance, the Association of Casualty and Surety Companies and the National Association of Independent Insurers are all co-operating with the state chamber's efforts.

Their campaign began last year with a thoroughly documented study of the abnormally high jury awards being handed out in Washington County, a phenomenon which encouraged large numbers of accident victims to file lawsuits and hold out for jury trials. The study showed that Washington County auto owners also paid up to 100 per cent more for their auto liability insurance than motorists in other Pennsylvania counties of comparable size. As a result of the wide publicity given the study, exorbitant claims and excessive jury awards are now being brought into line, with the hope that insurance rates also can be reduced.

More efforts of this kind are sorely needed. It is not only possible, but imperative, to assure accident victims fair compensation for injuries negligently caused by others. It is equally possible and imperative that the driving public be assured of fair insurance rates through curbs on abuses of all kinds in the handling of personal injury claims. ⊙

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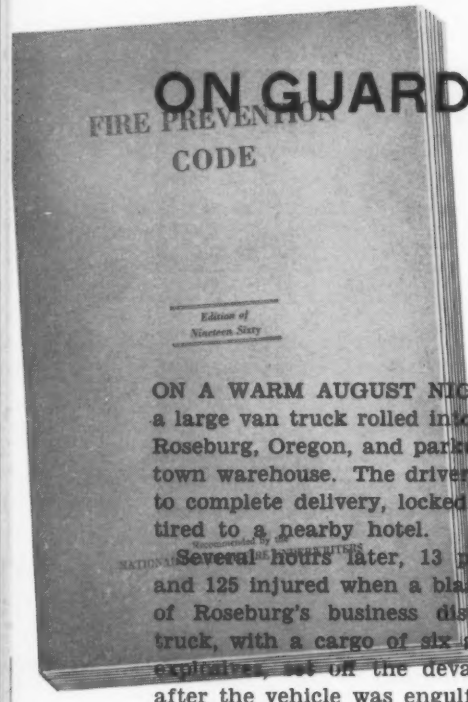
Cities with a high frequency of bodily injury claims against motorists also tend to file a large number of similar claims against stores. This supports the view that attitudes help raise or lower insurance costs.



ON GUARD AGAINST CATASTROPHE

More than 1,800 U. S. communities have been made safer by the Fire Prevention Code.

ON A WARM AUGUST NIGHT two years ago a large van truck rolled into the quiet town of Roseburg, Oregon, and parked next to a downtown warehouse. The driver, who was too late to complete delivery, locked the truck and retired to a nearby hotel.

Several hours later, 13 persons were killed and 125 injured when a blast rocked 12 blocks of Roseburg's business district. The parked truck, with a cargo of six and a half tons of explosives, set off the devastating detonation after the vehicle was engulfed by flames from a warehouse fire.

Today the chances of such a disaster have been greatly lessened in this town of nearly 12,000 persons, for Roseburg has removed itself from the list of unguarded cities through adoption of the National Board of Fire Underwriters' *Fire Prevention Code.*

Had the code been in effect on that August evening, the trucker would not have been permitted to park his dangerous cargo in downtown Roseburg. In fact, the city council had been considering the code's adoption just prior to the nightmarish fire-explosion.

The National Board reports that there are now more than 1,800 communities with its fire code or one quite similar to it. Last year alone, 259 municipalities joined the growing NBFU code list. Yet there are many hundreds of towns and villages today that have no code whatsoever which deals directly or indirectly with fire prevention.

Good fire-fighting facilities, as Roseburg and other towns discovered the hard way, are not enough. Universal adoption and strict enforcement of the National Board's fire code could prevent much of our ever-mounting fire loss. In the past decade fires have claimed 116,000 lives in this country, along with nearly $12 billion in property losses.

Concern for this abominable burning brought about the first publishing of the fire code in 1930. It is now periodically revised by a staff of experts working under the NBFU's director of codes and standards. This staff is continually keeping abreast of new developments in the fire prevention field. A code revision is published whenever the National Board feels there have been enough additions and changes to make it necessary.

Working in close conjunction with the National Fire Protection Association in Boston, which is supported in large measure by the insurance industry, the NBFU leans heavily upon standards developed by NFPA technical committees. Insurance engineers serve prominently on these standard-forming bodies. Testing of materials and devices mentioned in the code is done primarily by Underwriters' Laboratories, Inc., an agency founded originally by insurance companies.

In the most recent (1960) edition of the code, a number of changes and additions were made. An example is a section dealing with bowling establishments. A marked increase in the number of bowling alley fires sparked an investigation. Findings disclosed that in the process of bowling pin refinishing, power tools were often not effectively grounded, touching off many serious fires. The new code makes specific reference to new and safer methods of refinishing.

A spokesman for the NBFU noted that not all cases confronting the organization's experts are easily solved. On some problems there is no previous experience from which to judge or compare. Hazardous new chemicals and materials are being introduced daily. New uses of plastics and other synthetics require immediate and proper safeguards. Engineers must then make calculated estimates as to what the fire prevention code should specify in regard to these new materials and liquids. Their calculations, however, are extremely accurate, being based on nature's physical laws.

One of the most popular features of the *Fire*

Prevention Code is the manner in which it is drawn up, making it relatively easy for communities of nearly every size to adopt it and at the same time establish a local fire prevention bureau. Smaller towns and villages often find the abbreviated edition of the code more to their liking. This covers the essentials of the larger code, found in almost all towns, but eliminates many of the details needed in larger city protection. Some 600 communities have adopted this short form.

A mutual fire insurance engineer said that the entire insurance industry considers the NBFU code an excellent starting point for most towns —"a keystone for the ultimate in a good over-all municipal code." However, he added, there is a big difference between fire prevention and fire protection. True, the code lessens the possibility of fires starting, but the code doesn't touch on protective measures which should be taken in case they do start. Here the National Fire Protection Association and its comprehensive index of fire codes and standards do the job. The NFPA, together with the insurance industry, offers the ultimate in municipal fire safety.

According to W. W. Pritsky, director of codes and standards for the National Board, the primary reason towns consider the code's adoption is that they have become convinced of the need for reasonable regulations to minimize fire occurrences. These regulations must be reasonable and sound in order for them to be enforced, but must also be stringent enough to do their designated job.

To strike this difficult balance, National Board members are in constant touch with city officials, discussing community problems, offering and receiving recommendations for advancing the fire prevention cause. This "grass roots" type of research provides the bulk of the 210-page fire code.

But how many towns really need such a lengthy code? It is often argued that there is no necessity for such a complete and comprehensive law, for many of the hazards covered in the code are not found in some communities. The NBFU answers this by pointing out that every growing community is certain to have these fire perils in the future, and it's better to be prepared for them now than to allow unrestricted development, then attempt to establish retroactive regulations.

Residents of Roseburg, Oregon, are in complete agreement. ⊙

Aerial view of downtown Roseburg shortly after much of it was leveled by fire and explosion. Lost lives and property could have been saved through enforcement of a fire prevention code. Roseburg today is well-protected by such a code.

Wide World

Source: National Safety Council

MANAGEMENT'S $550 MILLION NIGHTMARE

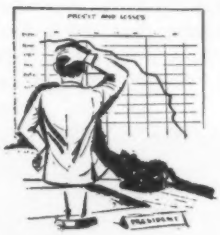
Off-the-job accidents kill and sideline more workers than on-job mishaps.

DEATHS AMONG WORKERS
(43,000 in 1960)

DAYS LOST
(90 Million Man-Days, 1960)

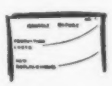
COSTS TO EMPLOYERS

($550 Million Annually)



Wages	**$350 Million**
Additional Costs	**$200 Million**

Higher insurance premiums for auto, medical and hospital, public liability and fire coverages owing to losses caused by accidents.



Higher cost of production by inexperienced replacements.

Expense of replacing tools and materials spoiled or damaged by replacement workers.

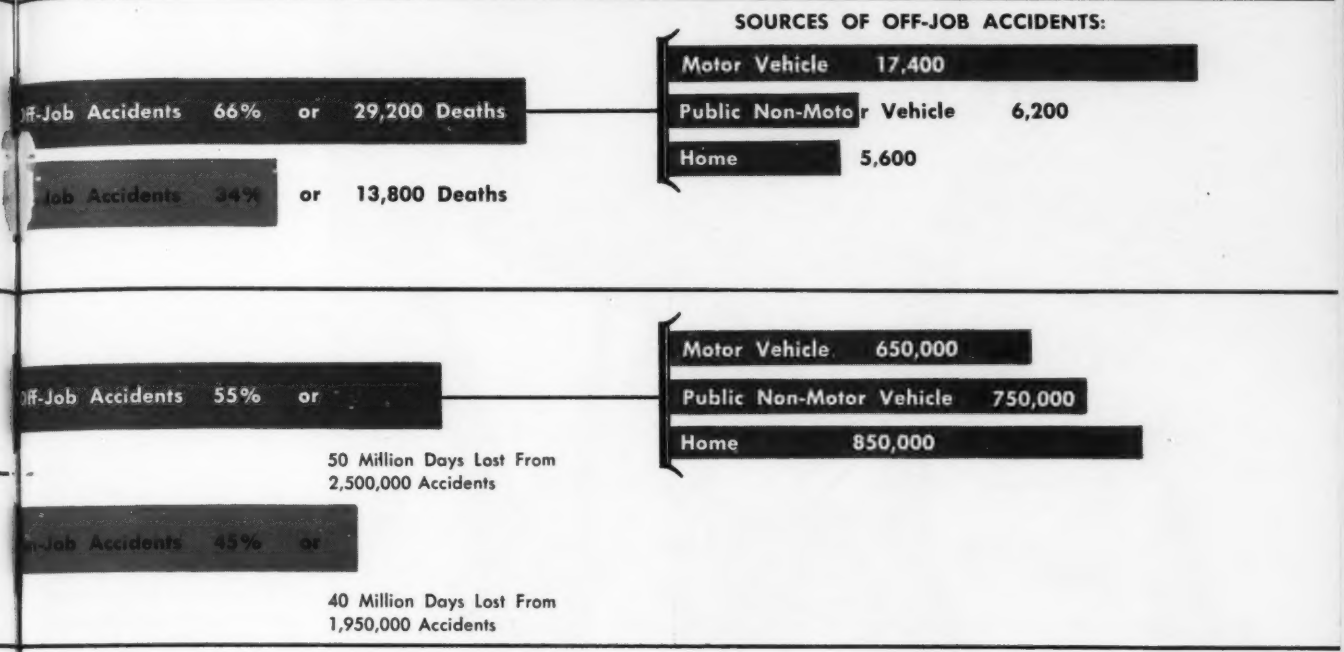
Time lost for hospital visits and funeral attendance by noninjured colleagues of accident victims.

Nursing and medical expenses during rehabilitation.

DEATH has a 2:1 edge on workers while they are off the job as compared with their chances while they are working. Even in the high-speed, complex industrial economy of today, workers are far safer on the job than they are pursuing free time activities. And if he escapes death, the average industrial worker still runs a higher risk of being injured at home or while driving his car than he does while operating a complicated machine or driving a company truck.

Thanks to on-job safety efforts of management and loss prevention services of insurance companies, the work injury rate was cut in half during the 20-year period from 1939-59. Previously, in the 1935-39 period, 13.11 disabling injuries were reported for every 1 million man-hours of work, resulting in an average loss of 1,550 man-hours for each 1 million worked. By 1959 these averages had been reduced to 6.47 injuries and a severity rate of 754. Work deaths in the same 20-year span were cut from 15,500 to 13,800 annually while the number of workers grew from 43 to 61 million.

These achievements in on-job safety point up the dreadful toll of off-job accidents among workers, a problem that is drawing increasing attention from management. As the table on these pages shows, off-job accidents account for


SOURCES OF OFF-JOB ACCIDENTS:
Motor Vehicle 17,400
Public Non-Motor Vehicle 6,200
Home 5,600
Off-Job Accidents 66% or 29,200 Deaths
Job Accidents 34% or 13,800 Deaths
Motor Vehicle 650,000
Public Non-Motor Vehicle 750,000
Home 850,000
Off-Job Accidents 55% or
50 Million Days Lost From 2,500,000 Accidents
Job Accidents 45% or
40 Million Days Lost From 1,950,000 Accidents

two-thirds of the deaths and more than half of the lost-time injuries among workers. Cost to management of these off-job accidents is conservatively estimated at $550 million annually in higher production costs, increased premiums, medical expenses and other outlays.

To workers, off-job accidents mean not only personal suffering and family sorrow, but loss of income and, not infrequently, the need for a new job.

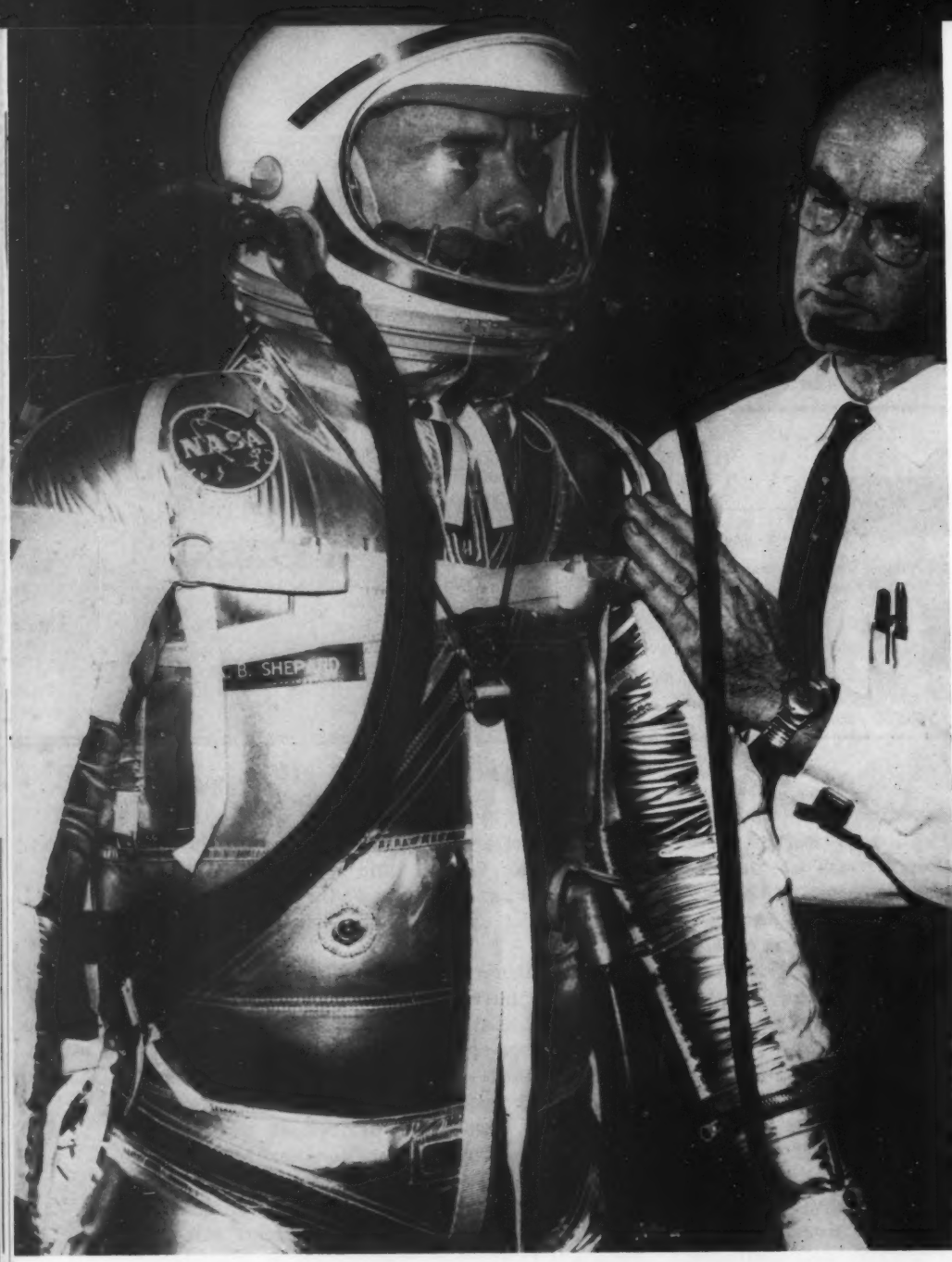
An official of the National Safety Council sums it up this way, "Management can no longer ignore the off-the-job safety problem. Off-the-job accidents resulting in disabling injuries outnumber work accidents more than seven to one."

Executives of many firms, both large and small, have initiated intensive programs aimed at keeping off-the-job workers well and alive. They frequently apply to off-job safety education the same techniques that are successful in reducing on-job mishaps.

Traffic accidents, by far the costliest of off-job mishaps, are the first targets of management's attack. Many companies have organized "defensive driving" courses; others sponsor adult driver education classes; and numerous industrial firms lend support to vehicle safety check campaigns. How well such efforts work is illustrated by the Bell System, which started a general better driving program for employees 10 years ago. In that time motor vehicle accidents involving employees of Bell affiliates have been reduced as much as 50 per cent at some companies.

Home mishaps, another major source of lost work time, have been significantly reduced by companies that promote safe do-it-yourself practices by employees. Messages on plant bulletin boards and over loud speakers keep home safety lessons in workers' minds. Some firms have used such devices as a "safety valentine" to warn of vacation hazards and a spring hazards booklet with flower seeds attached. One company even sponsors swimming lessons. Employers, who cannot send safety-conscious foremen to workers' homes, must rely on such measures to make employees aware of the importance of home safety.

Such loss prevention procedures, many of them pioneered by mutual insurance companies underwriting workmen's compensation, are bound to benefit employers. A recent survey revealed that each disabling injury costs management an average of $350.92, a figure that makes off-job accident reduction economically important. ⊙



Astronaut Alan B. Shepard, Jr., was fitted for his remarkable space suit by the B. F. Goodrich Company's Russ Colley, who helped design it. Suit has built-in oxygen supply, communications system, and air conditioning. Construction of wrinkled joints was inspired by a worm inching along in Colley's garden.

Exotic gold fabric and other materials are being tested for journeys to the moon and beyond in these vacuum bell jars at BFG's research center at Brecksville, Ohio. Object is to have wardrobes ready when rockets are perfected for such space trips. Kemper Insurance covers all of the company's divisions.

SUITING-UP OUR SPACEMEN

History-making outfits for Astronaut Shepard and others are products of many years' research.

Ancestor of today's space garb was this outlandish suit created by Colley and B. F. Goodrich in 1934. Man inside is Wiley Post, who used it to set new altitude records.

DRIVING ALONG a lonely road in California's Mojave Desert, a motorist saw a small craft float down silently from the sky and land on the desert floor. His curiosity aroused, he set out afoot to investigate—until a grotesque figure emerged and waddled toward him uttering unearthly grunts. The motorist took one look and bounded away like a startled jack rabbit, with the creature in full pursuit.

Another flying saucer yarn? Not at all. The year was 1934, and the "man from Mars" was Wiley Post, friend of Will Rogers and an internationally famous aviator in his own right. In a little-known prelude to manned rocket flights, Post was testing the world's first space suit—a cumbersome rubber affair topped by a diver's helmet. He had been forced down by engine failure and needed help in getting out of his heavy outfit.

Three months ago, the knowledge gained by Post and the men who built his suit bore spectacular fruit when Astronaut Alan B. Shepard, Jr., made an epic high jump into space. His shiny silver space suit, seen by millions on television, is a direct descendant of Post's crude prototype.

More is yet to come. As the U. S. astronauts push forward to earth orbits and manned rocket tests, the hands and brains that created their remarkable life-support garments already are well along on far more advanced outfits designed to sustain human life on flights to the moon and beyond.

Center of this top-secret research is the B. F. Goodrich Company's research and development center in Brecksville, Ohio, where engineers and scientists are patiently testing fabrics under simulated space conditions. Although detailed descriptions are prohibited, it is known that one suit currently being considered is fabricated of 24-karat gold cloth and other exotic fabrics. Its purpose is to dispel heat, which beats against the moon's surface at more than 220° F.

B. F. Goodrich's involvement in space suit research goes back to 1933, when an Italian flier named Renato Donati set an altitude record of 47,000 feet. It immediately became a mark for other aviators to shoot at, and Wiley Post came to BFG for help. He wanted to know if the firm could make a pressurized suit that would enable him to fly his famous "Winnie Mae" above the nine-mile mark, where lack of air pressure would quickly cause unconsciousness and death.

One of the engineers who listened to his problem and agreed to help was Russ Colley, who from that day to this has figured prominently in the development of every high-altitude suit produced by B. F. Goodrich—including the ones worn by Commander Shepard and by hundreds of Navy and Air Force aviators.

Post's original model, in fact, was stitched on Mrs. Colley's sewing machine. Colley's daughter Barbara still prizes a small piece of cloth that reads, "IOU $60,000. Wiley Post." While the others sewed, Post had taught the girl to play roulette, and she had beginner's luck.

The first great problem that dogged the early space suit designers, and one that still plagues Colley and his counterparts today, is the tremendous rigidity of fabric under pressure. Pump even three pounds of air pressure per square

inch into a suit and the arms and legs stiffen out like sheet metal, making it virtually impossible for the wearer to move. Post's suit had to be built in a sitting position, with the arms carefully designed so the wearer could still move his hands enough to fly. The helmet was immovable and allowed only the most limited, straight-ahead viewing.

A real breakthrough in space suit design came in 1952, when BFG developed a swivel joint of airtight, rotating bearings and fluted joints. It was Russ Colley's ingenuity that did the trick, with the aid of inspiration from a most unlikely source. He saw a fuzzy little tomato worm inching its way up a stalk in his garden and became fascinated by the way the worm moved itself along, expanding and contracting the flexible bands encircling its body.

Using the same principle, Colley designed a suit that looked as though small rubber tires had been glued together, and topped it off with a plexiglass bubble to form a dome over the wearer's head. The worm-inspired creation fired the imaginations of cartoonists and illustrators of science fiction, and has served ever since as the model for their numerous "men from Mars." More important, it gave U. S. Navy and Air Force pilots a garment that was proved reliable long before it was needed by the astronauts.

Mark IV Serves as an Airtight Package

Today's model, a refinement of the 1952 version, is known officially as the Mark IV Lightweight Full Pressure Suit. It serves a number of vital functions in space flights, the most important being to act as an emergency container for the astronaut in the event his capsule's pressure system fails. Built-in controls inflate the suit automatically if pressure outside drops below 3.4 pounds per square inch, the equivalent of 35,000 feet of altitude. These controls maintain stable conditions inside the suit even in the complete vacuum that begins 600 miles up.

In addition, the suit provides air conditioning for the astronaut's comfort at all levels, supplies oxygen for him to breathe without the necessity of a tight-fitting mask, and keeps him afloat and warm in the event he has to ditch his capsule when it lands in the ocean at the end of a space journey.

All this and more is accomplished by an outfit that weighs only 20 pounds, some 14 pounds lighter than the 1952 version. It consists of four basic parts—boots, gloves, helmet and a close fitting coverall-type garment that joins with the accessories to form a continuous, airtight assembly.

Mark IV's torso is made of two close fitting layers, the inner one consisting of an airtight, neoprene-coated fabric with knitted sections tailored in at the joints to give it greater flexibility. The outer layer is made of aluminized nylon and rubber.

Snug Fit Is Assured by Ingenious Details

Suits come in 12 sizes, with adjustment straps at various points to improve the fit. The wearer gets inside by means of a pressure-sealing zipper running diagonally across the chest section. In flights such as that made by Alan Shepard, the wearer also would put on an antigravity suit underneath to help his body withstand the enormous forces created by rapid acceleration.

Another safety factor is the plastic helmet that attaches onto the torso by means of a neck ring, which also serves as a pivot for the astronaut's head. The helmet has a suspension system to support the wearer's skull, an oxygen supply system, retractable visors of both clear and tinted glass, and even little air jets to keep condensation from fogging his vision.

Altogether, the outfit has some 1,600 separate parts, each of which must be tested under stresses four times greater than those anticipated in actual use. In designing and building it, B. F. Goodrich engineers had to solve at least a thousand technical problems, many of them tough and basic.

Mutual insurance has participated in BFG's many contributions to space research almost from the beginning. Since 1935, the Kemper Insurance organization has insured all divisions of the company in the U. S., Canada and Puerto Rico. Included is liability protection for all of B. F. Goodrich's 40,000 products, among them the Mark IV space suit.

So far BFG and its insurer have had no calls to investigate complaints filed by either earthly spacemen or the flying saucer variety, but they have excellent connections if the need arises. Astronaut Shepard's father, Alan B. Shepard, Sr., is a partner in the Derry, New Hampshire, insurance agency of Bartlett and Shepard, and has been handling Kemper insurance since 1952. ⊙

American Flours Company mill at Newton, Kansas, stores 5 million bushels of wheat in the gleaming row of bins. Mill Mutuals cover buildings, equipment and grain.

GUARDIANS OF OUR GRANARIES

Nine companies known as the 'Mill Mutuals' insure half the nation's grain facilities.

WORKMEN at the Hunt Milling Company in Richwood, Ohio, were busy putting soybeans into storage when smoke suddenly began pouring out of the pit where the beans were being scooped up by a bucket elevator. The owner turned on a siren to call for help—and got unexpected results.

A stranger raced over from a nearby restaurant, threw the main power switch, stuffed wet burlap bags into the chimney-like elevator shafts, and teamed up with the fire chief to douse the blaze. He then climbed out of the pit, wet and dirty, and introduced himself as a Mill Mutual inspector—one of a resourceful breed of insurance men whose companies will play a major role in safeguarding this year's bumper grain crop.

Together, the nine companies that make up the Mill Mutual group insure well over half of our estimated 23,000 grain storage and processing firms, including flour and feed mills, soybean processing plants, grain elevators and warehouses.

Their phenomenal success is based solidly on loss prevention engineering that has more than doubled the life expectancy of mill and elevator property, bringing fire insurance rates down by at least 60 per cent since the 1920s.

This emphasis on reducing insurance rates through prevention of losses goes back to the

Fire starts easily and spreads swiftly in dusty grain elevators, a fact that led indirectly to the founding of the Mill Mutual companies. Insurance engineers have pioneered dozens of improvements in equipment to reduce fire hazards. This blaze cost insurers $34,381.

momentous era of agricultural expansion that followed the Civil War, when millions of settlers poured into the Middle West and turned it into one of the world's great granaries. Mills sprang up to convert the bumper crops into flour and feed, and wooden grain elevators mushroomed on railroad sidings throughout the plains to store golden wheat and corn until it could be shipped.

Unfortunately, both the mills and elevators soon acquired reputations as bad insurance risks, with resulting fire insurance rates of $3 to $10 per $100 of insurance. This penalty was further increased following the Chicago fire of 1871, when most companies then writing fire insurance hiked their rates from 30 to 50 per cent on all classes of property.

High Rates Led to Start of Mill Mutuals

This was the last straw for members of the newly-formed Iowa Millers Association. In 1875, led by an energetic Scotsman named James Sharp, they set up their own mutual insurance company and embarked on a campaign to find and eliminate the hazards that were causing their mills to burn with such distressing frequency. By the turn of the century, mill owners and grain dealers had followed suit in Indiana, Illinois, Michigan, Pennsylvania, Ohio, Missouri and Texas, pooling their efforts to provide financial protection for their property and to find workable means of reducing losses.

That goal persists to this day. As one Mill Mutual man put it, "When we inspect a mill or elevator and agree to insure it, our fieldman sits down with the owner and says, 'Now let's figure out how to bring your rates down still further.' Then he'll point out all the things the owner can do to reduce hazards and gain credits on his premium rate. Some of them he may be able to do right away, others may be spread over several years or incorporated in the design of any new buildings or additions. The point is that they work out a program that is bound to save the man a lot of money."

There are now approximately 100 of these fieldmen serving Mill Mutual policyholders wherever grain is stored or processed. Unlike ordinary insurance agents, they are full-time specialists in the mill and elevator field, and are given considerable discretion to adjust rates,

settle losses, and perform the impartial fire safety inspections required in all Mill Mutual risks from one to four times a year.

In addition, fieldmen often serve as unofficial business consultants, since measures taken to improve fire safety often result in more efficient operations, and vice versa.

Two features of the Mill Mutual system tend to encourage and promote the efforts of both the fieldman and policyholder in the process known as "improving the risk." One is that the fieldman is a salaried employee not dependent on commissions. Thus the steps taken to reduce premium costs will not affect his income. The other is a rating system based solely on the degree of risk presented in each individual mill or elevator property, which means that improvements are reflected speedily in lower insurance rates—regardless of how good or bad other mills in the same area may be.

Supplementing the work of the fieldmen is an organization known as the Mill Mutual Fire Prevention Bureau, headquartered in Chicago as the technical arm of the Association of Mill and Elevator Mutual Insurance Companies. Its six staff engineers serve as consultants to fieldmen and accompany them at least once a year on inspections of large or extra-hazardous risks. In addition, the bureau has turned out a remarkable list of technical manuals, specifications and codes that now are widely used throughout the grain industry.

Insurance Experts Spot Potential Trouble

Over the years, the Mill Mutuals have pioneered and championed dozens of basic improvements in mill and elevator machinery, construction and methods, largely through the Mill Mutual Fire Prevention Bureau's staff of engineers. One notable example is the grain dryer, a piece of equipment in very limited use until about 15 years ago. When grain dealers began installing them in large numbers, numerous fires resulted from faulty design until Mill Mutual engineers stepped in. They developed an automatic heat detector to spot trouble and an emergency control to sound an alarm, shut off the burners and halt the flow of grain in and out of the machine until the cause of the malfunction is removed. Today the majority of grain dryers conform to Mill Mutual standards—and those that don't run into considerable buyer resistance.

Similarly, Mill Mutual persuasion brought

Welders were repairing a hole in a grain spout atop this large elevator in Burkburnett, Texas, when dust came in contact with the hot metal and exploded. One welder was seriously injured, $47,515 worth of grain was burned or damaged, and repairs ran to $153,739.

about safer designs in V-belts and their drive systems, all-metal dust collectors and totally-enclosed electrical motors for use on all machinery operated in dusty places.

The need for such precautions is well illustrated in an incident that occurred in February, 1960, at Burkburnett, Texas. Workmen at the Harlin A. Mills Grain Company were loading wheat and wore a hole in a section of spout up in the head house atop the cylindrical storage bins. The owner called in a local welder to make repairs, allowing him to work between loads of wheat. The job was nearly done when wheat dust flowing past the hot welding ignited and exploded, blowing off a huge chunk of the elevator structure. The welder was severely injured, and damage to the buildings, equipment and wheat amounted to more than $200,000.

Dust Explosions Are Worse Than Dynamite

"Control of dust hazards remains one of our most serious problems," says Thomas Adler of the Mill Mutual Fire Prevention Bureau. "Pound for pound, grain dust is 10 times more powerful than dynamite, and a lot less predictable. In order to explode, it must be suspended in the air—but a single spark can set it off."

Dust settled on floors, sills and machinery also poses a severe fire hazard, since it will char at 250° F. and ignite at about 450° F. By comparison, tissue paper requires about 750° of heat before it will catch fire.

The low ignition point of grain dust creates a special problem inside bucket elevators, where friction from a slipping belt can create enough heat to set off a fire before anyone is aware that something has gone wrong. Mill Mutual engineers have gone a long way toward solving the problem, however, with two safety devices now widely used in the industry. One is a heat detector that sounds an alarm whenever the temperature inside the elevator shaft exceeds 160°. The other is an automatic control to shut off the power if the elevator chokes and overloads the motor that drives the pulleys.

In addition to their loss prevention activities, the Mill Mutuals also pioneered many of the insurance coverages now standard in the grain business, including coverage for inherent explosion in grain-handling facilities. They also originated the reporting form of insurance on fluctuating amounts of stored grain. The amount of insurance varies as the number of bushels and the price of grain go up or down.

Mill Mutual policies are broader than most, covering virtually all physical losses to both property and the grain stored in them. Since most grain dealers handle other commodities as well, Mill Mutual policies also cover edible beans, flax, grass seed and other seeds as well as wheat, corn, oats, barley, rice, soybeans and the sorghum grains. Flour and cattle feed also are covered while in the milling process and in storage afterward.

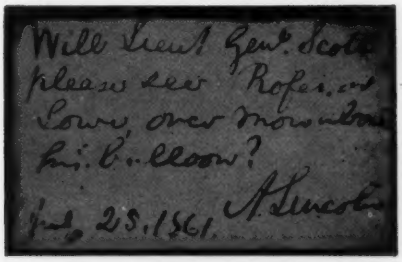
An additional advantage of Mill Mutual coverage is that the mill owner needs only one policy to cover all of his buildings and equipment, and a single policy to cover all of his stock. This is a real advantage to large mills, which sometimes are found to have 50 or more different fire insurance policies split up among as many different companies. The reason is that no one company usually wants to accept a risk that large. The Mill Mutuals accomplish it by placing the combined assets of all nine member companies behind large policies, with each company accepting a slice of the risk and a share of the premium income. Details are handled by the association office in Chicago, and by five departmental offices in Kansas City, Nashville, Minneapolis, Seattle and Columbus, Ohio, which serve policyholders of all nine companies on a pool basis.

Participating companies include the Grain Dealers Mutual of Indianapolis; Millers National of Chicago; Millers Mutual of Alton, Illinois; Michigan Millers of Lansing; Pennsylvania Millers of Wilkes-Barre; Mill Owners Mutual of Des Moines; Millers Mutual of Fort Worth; Millers Mutual of Harrisburg, Pennsylvania; and American Manufacturers Mutual of New York.

They Specialize in the 'Untouchables'

This month, as the mills and elevators work overtime to store and process our burgeoning grain supplies from the fall harvest, Mill Mutual men also are redoubling their efforts to safeguard and improve on a 76-year record of achievement unsurpassed by any group of insurance companies. Harry C. Lee, manager of the Mill Mutual Association, summed it up: "They took a class which nobody else wanted, an outcast, an untouchable, and made of it a class which everyone else seems to want today." ⊙

A CENTURY OF BALLOONERY


Will Lieut. Gen. Scott please see Profs. Lowe, over Mon. about his Balloon?
June 23, 1861. A. Lincoln

Presidential request which culminated in Lowe's appointment as first official U. S. aeronaut, later distinguished for services to the Union.

THIS COUNTRY'S first official aeronaut, Thaddeus S. C. Lowe, made space history 100 years ago by going aloft in his *Intrepid* and other balloons to supply the Union forces with exact information about Confederate positions on the Civil War battlegrounds. Even though the *Intrepid* was the best known of the Federal balloons, it was little more than a toy by present-day standards, being only 45 feet tall from the valve to the tapering appendix.

Now on the centennial of Lowe's pioneering, modern-day aeronautists are about to suspend 10-story balloons 18 miles or more in the upper atmosphere to scout out the extraterrestrial "confederates" of the weather—both good and bad. The locale for that venture will be the new National Center for Atmospheric Research which will commence operations this fall on the site near Boulder, Colorado, shown on our back cover.

For the insurance industry, that could be as epochal as the unveiling of the steam fire engine and the advent of mechanical fire fighting in New York just 120 years ago. Like fire, weather out of control is a multimillion dollar demonry for property owners and the insurance industry. Breeding ground for much of our weather is at high altitudes. But just as the bucket brigades were inadequate for massive fire fighting, we have been jousting against the weather with too little data from the upper regions of the atmosphere. A single catastrophe such as the Northeast Storm of 1950 still causes losses in the range of $174 million.

Basic knowledge, through colossal balloonery and other means, will be the business of the National Center for Atmospheric Research. It will be out to fathom the atmosphere—"that gaseous envelope around the sun in which the earth is imbedded." Much of NCAR's activity will be in areas concerned with weather. What, for instance, is the relationship between rain and electricity in thunderstorms? What effect, if any, do sun spots have on the earth's weather pattern?

Ultimately such research may bring improved forecasting and possibly even actual weather modification or control.

Establishment of a balloon facility will be only one of NCAR's diverse functions as an intellectual center for basic atmospheric research. Through this facility, scientists doing research via balloonery will be brought together with balloon makers and operators of launching facilities. NCAR will be their operational base for atmospheric balloon probes up to heights of 100,000 feet and more.

Founded July 1, 1960, NCAR already has research underway in temporary quarters at Boulder under direction of Dr. Walter Orr Roberts. He is an internationally known atmospheric physicist, director of the High Altitude Observatory, University of Colorado, and currently on leave as chairman of the university's department of astrogeophysics. The financing agency is the National Science Foundation. Managing agency is the University Corporation of Atmospheric Research composed of 14 U. S. universities offering degrees in meteorology. Ten to a dozen working scientists are expected at NCAR by this fall as the vanguard of an eventual corps of 300 to 500 people. Ground-breaking for the first permanent building is planned for the fall of 1962.

Balloonist Lowe made his first experiments in aerostatics with kites and the family cat as a passenger. But Lowe's backing by President Lincoln and the friendship and counsel of Professor Joseph Henry, secretary of the Smithsonian Institution, have proved to be ample insurance that ballooning some day would make peacetime history from the mesa atop Boulder's Table Mountain. ⊙

HOSTS OF THE HIGHWAY

Cities Service Company

Service stations, multiplied to 200,000, now serve as complete purveyors for motoring millions.

WHEN GRANDFATHER, sitting proudly in his horseless carriage, chugged into a filling station, an offer to clean the windshield was considered a personal insult to his habits of cleanliness.

Stations, in those early days, were regarded as highly proficient if they offered nothing more than chamois-filtered gas, free air and the right time.

Such is no longer the case. Today's filling stations are called service stations, and for good reason. Stocking everything—literally—from soup to nuts, many stations now have television lounges, lunch facilities, patios for outdoor meals, maids and hostesses, playgrounds, child nurseries and, in at least one case, a solarium for sun-loving customers, with a view of the landscaped drive. And for protecting the value of life and property around the modern service station there is now the package policy of insurance such as provided by mutual companies.

Catering to the customer's every whim came in with the service station building boom following World War II. Competition at that time reached new heights. Today there are more than 200,000 stations vying for the business of 73 million motor vehicles. Giving candy to the youngsters, observed one operator, isn't a sure road to success, but it sure helps.

Following closely the transformation of the corner grocery into the supermarket, service stations have started offering one-stop all-purpose facilities for every type of motorist. Some of the major oil companies are currently experimenting with what they call "super service stations," with plans to locate some in the middle of shopping centers. Each of these larger stations is expected to replace several smaller ones. They have bigger drives, more pumps, brighter lights and more spacious rest rooms. When a station attendant boasts: "You name it and we have it," he isn't joking.

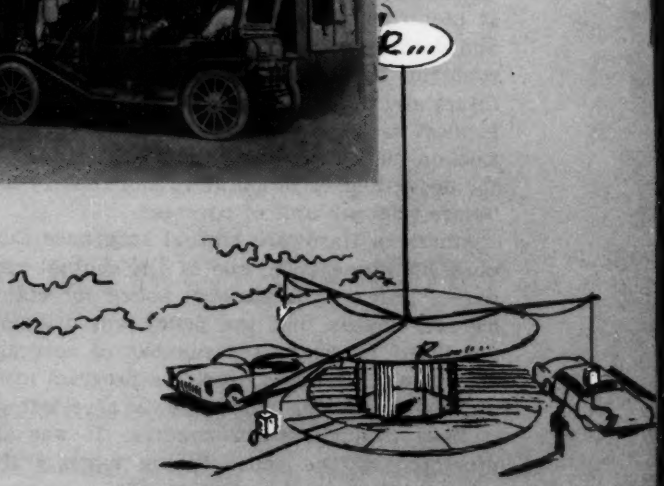
Another major factor in this swing to everything is a result of the ever-increasing number of women drivers, who number more than 35 million. Two of every five motorists are women,

American Petroleum Institute

→ Competition was already running high when this station opened in early 1920s. Chamois-filtered gas and free air were then the ultimate in customer services. But old gravity pumps and poor tank ventilation gave stations high susceptibility to fires.

← This modern service station in Miami, Florida, is typical of many large units being built. One-stop, all-purpose stations provide a myriad of merchandise and service. Wide drives, colorful landscaping and decorative displays make them highway oases.

→ Stations of tomorrow will make even today's fashionable units appear outdated. Plans are now in the offing for "exciting and unusual" buildings. Pumps will rotate overhead, coming to the cars rather than vice versa, adding to customer accommodations.



giving stations about 50 per cent of their business. They're also more emphatic in their praise or denunciation of services rendered than are their male counterparts. A Florida station owner explained: "If they trust you they tell the neighborhood." But criticism spreads, too.

Moves to attract the feminine motorists include the use of pastel colors on station fronts, wider drives, well-decorated picture windows and, at several stops, attendants attired in Bermuda shorts and knee-length stockings. One oil company even boasts of using clean money for making change. Here the ever-present "grease monkey" is apparently banned from the drive.

Spurring the steady increase of supplies and services are the demands for them. From 1955 to 1959, for instance, passenger car registrations soared by more than six million. Auto manufacturers optimistically estimate that even more sizeable jumps can be expected in the future. They predict that 25 per cent of motoring families will soon have two cars. This all adds up to continued service station success, for next to food, clothing and shelter, the average American considers his car the most important item in his everyday life.

Nevertheless, all is not roses in this fast-moving business. According to an official of a gasoline retailers association, some 37 per cent of the more than 200,000 service stations are failing to reap a profit. He observed that, profit-wise, the retail gas business is 30 years behind the times. "Back in 1926," he recalled, "dealers received 6 cents profit for every gallon of gas they pumped. Today the profit margin has been halved."

Company officials agree that service station marketing operations must be made more efficient. They feel that station consolidation is a big part of the answer. This means larger and fewer stations with more volume, giving dealers a more substantial profit.

A vital partner in the growth, protection and prosperity of efficient service station owners is a well-planned insurance program. By careful study of the needs, mutual insurance companies have developed an economical service station package policy. Designed specifically for the retail operator, the policy provides coverages for bodily injury and property damage liability arising from ownership and operations. This includes the use of grease hoists and operation of customers' autos while in the custody of the station.

Burglary and robbery coverages in the policy

include losses from inside or outside station buildings, kidnappings, safe burglaries, thefts at night depositories or custodians' residences, and damage to station premises as a result of robberies or burglaries. Basic limits of bodily injury and property damage liability are $25,000 in most package policy plans. Collision protection on customer vehicles is $5,000, subject to $50 deductible. Basic burglary and robbery limits are $200 per unit of coverage.

American Hardware Mutual Insurance Company of Minneapolis, one of the mutual companies providing a package policy for station owners, reports that the policy was originally developed to combine a number of coverages already available and provide a program meeting the particular requirements of retail gas stations throughout the country. It was also prompted by the belief among insurers that a majority of service stations, like most small businesses, are inadequately protected. The package policy not only fills in the inadequacies, but eliminates the chance of coverage duplication. The savings in cost are brought about, in part, by avoidance of minimum premium charges which would develop should these coverages be written under separate policies.

Service station owners can receive additional savings by having their package policy written for a period of three years. If they wish, such coverages as medical, products and completed operations can be obtained under the policy for an additional charge.

CGAL Policy Best Suits Large Stations

Large service stations most often find it advisable to incorporate all liability coverages under a CGAL (Comprehensive General Automobile Liability) policy embodying garage liability protection and to have crime protection designed to suit their individual requirements.

This pleasant working relationship between the insurance and service station industries didn't always exist. Only through the efforts of both industries, working together toward a common loss prevention goal, did the insurance-desired service station become a reality. M. E. Woodworth, flammable liquids specialist for the National Fire Protection Association, reported after an analysis of fires in 18 cities that service stations no longer constitute any special fire problems or hazards to communities, "a remarkable record when one considers the millions of gallons of gasoline handled every year."

This was not always the case, however. When Henry Ford introduced his Model T to the public at a price most could afford, makeshift stations popped up everywhere, and little wonder. In 1894, there were just four autos operating in the country. Less than a quarter of a century later there were more than 10 million.

Gasoline, at first, was sold in small quantities at bicycle shops, grocery stores and by kerosene peddlers. Safety precautions for handling the flammable liquid were almost nonexistent.

General store operators, aware of the decrease in the number of horses hitched out front and the increase in automobiles, set up crude and dangerous gravity pumps just outside their front doorways. They were later moved out to the curbs, not for safety reasons but to avoid bothering their more "backward" customers, the ones who still rode hayburners. Pumps were usually attended by young boys. Gasoline spillage and fires were common.

Through public education by the insurance industry and oil companies in the hazards of gasoline, the gradual elimination of gravity pumps, improvement of storage tank ventilation and other safeguards, service stations were soon removed from the insurance industry's undesirable risk classification. In most areas of the country, stations are now rated on a fire risk par with grocery stores. In fact, one mutual company's inspectors' manual rates service stations as more desirable risks than groceries.

Along with upgrading safety specifications, the super service station business is expected to continue its climb to even greater heights of customer satisfaction. Building designs, experts predict, will be "unusual and exciting." They will offer more merchandise, have larger patios and picnic areas. Single, electronically controlled pumps will dispense all types of fuel from one unit. Gallons pumped and prices will be transmitted to a central accounting center, recording each sale and furnishing customers with charge receipts.

But no matter how advanced the stations become, it's reassuring to know that there will always be patrons such as one Iowa woman. When informed that her auto battery needed water, she replied: "I thought I heard something squeaking under the hood!" ⊙

Hoping to emulate Mrs. Leona Schnuelle, grand prize winner in 1960, 100 finalists are now practicing for the big October bake-off. Mrs. Eleanor Pillsbury holds the winner's entry.

A COOK'S CROWNING GLORY

Grand National Bake-Off, with $100,000 in prizes, is talent climax for 100 finalists.

"There is no spectacle on earth more appealing than that of a beautiful woman in the act of cooking dinner for someone she loves."

THOMAS WOLFE, *The Web and the Rock.*

A SPECTACLE 100 times more exciting than that—if not more appealing—is in the making throughout the land. One hundred of the nation's finest cooks, using recipes beloved by them and their families, will soon be poised to go into the kitchen in competition for more than $100,000 during the 1961 Grand National Bake-Off of the Pillsbury Company.

For added glamour, they will be operating in the world's largest, most savory kitchen created within the International Ballroom of the Beverly Hilton Hotel in Beverly Hills, California. There the bake-off will be held October 1, 2 and 3. Insurance will be the warder in the kitchen and throughout the contest, starting with the boiler and machinery insurance which the Mutual Boiler and Machinery Insurance Company, Waltham, Massachusetts, provides for all the Hilton Hotels throughout the United States.

Contestants themselves and the escorts of junior contestants will be covered by portal-to-portal accident insurance carried by Pillsbury. The company also has advertising liability insurance with a special endorsement covering a variety of claims that might be made by contestants. And General Electric Company, co-sponsor of the bake-off, has a complete line of insurance covering the various exposures on which it might be vulnerable before, during and after the contest.

Submariner Ramon G. Cabalona, chief steward of USS Catfish, turned out the $1,000 prize pie, "sub-meringue," in 1960.

Karan Sprengle, Pomona, California, off with Mrs. Eleanor Pillsbury for the top junior award of $3,000 in 1960 event.

A Cook's Crowning Glory

Contestants even do a little insuring on their own, although Pillsbury and General Electric supply virtually everything—ingredients, ranges, pots, pans and protection. Many contestants bring along their favorite pan or pie tin or some special ingredient. One Wisconsin housewife just didn't trust a fresh egg from a big city store, and a Georgian wanted none but her own Peach State thyme.

Already 510 contestants have ensured themselves a chance at fame and a share of the prizes by being selected as state finalists following the close of entries on June 30. Announcement of the 100 grand national finalists will be made early in September.

Each of the 80 senior and 20 junior finalists will receive an all-expense trip to California, a three-day stay at the famous Beverly Hilton and a cash prize of $100. Every finalist also gets a new General Electric range and mixer.

But the prize of prizes for which the contestants are now perfecting their skills is the grand award of $25,000 won in the 1960 contest by Mrs. Leona Schnuelle, a Crab Orchard, Nebraska, grandmother and farmer's wife, with her dilly casserole bread.

For at least once in their lives, America's finest cooks part with old, cherished and sometimes closely guarded creations for a chance to win the bake-off. Thousands of them have done it in the past 12 years of this recipe hunt. Thousands more have concocted new and exciting recipes. Thereby Pillsbury's cookbooks have become classics, and its flour sack inserts have featured such tempting tidbits as "Orange Kiss Me Cake," "Snappy Turtles," and "Ring-a-Lings."

Recipes may be for any one of six major categories—cakes, cookies, breads, main dishes, pies or desserts—just so long as at least one-half cup of Pillsbury's Best Flour is used. Ingredients must be generally available in grocery stores, and no intoxicating beverages may be used. Throughout the judging the name of the recipe originator is kept secret by means of a special coding system, and all screening and judging of entries is done on a neutral and impartial basis by qualified home economists, using explicit judging standards.

Nobody loses in the bake-off, since each finalist gets $100, a new General Electric range and a mixer, regardless of any of bigger prizes. Furthermore the insurance department of the Pillsbury Company takes special pains to cover all claims and misunderstandings. The special endorsement of the company's advertising liability insurance policy takes care of all foreseeable claims, including those that the contestant's entry was not properly considered or was excluded on a basis other than merit.

Some of the recipes are brought by contestants as widely traveled as Ramon G. Cabalona, a native of Alangalang, Leyte, Philippine Islands, and chief steward on the submarine USS Catfish. His sub-meringue pie was a winner in the 1960 contest. Regardless of distances, Pillsbury has travel accident insurance on all participants from the time they leave home until they return.

Once at the scene of the bake-off, contestants and spectators are assured of exemplary protective and security measures long espoused in the loss prevention tenets of mutual insurance. Pillsbury stages the bake-off in large, well-run hotels whose personnel are alert to the potential problems of badly-lighted stairways, frayed carpets and such. Further, the contest sponsors are

The 100-range "kitchen" during the height of the 1960 contest in ballroom of the Statler Hilton in Washington, D. C. Helpers in hotel crews wash 2,000 mixing bowls, pans, spoons and dishes while contestants bake. Accidents and breakdowns have been surprisingly rare during 12 bake-offs of past years.

Each of the 100 finalists will receive an all-expense trip and a three-day stay at the Beverly Hilton, Beverly Hills, California, where the 1961 bake-off is being held. Mutual insurance has a role through the hotel's boiler and machinery coverage.

On the big day of the bake-off, the hotel's grand ballroom will be converted into the "sweetest smelling kitchen in the world" as the 100 finalists prepare their recipes. It takes a grocery list of 20 items costing about $2,600 to supply all the contestants.

Prestige of the contest has even earned "bake-off" a noun's place in dictionaries. Here Perle Mesta, GE's hostess at the 1960 event, shares honors with Mr. and Mrs. Philip Pillsbury.

A Cook's Crowning Glory

careful not to build stages, display areas or other special devices which could be hazardous. Co-sponsor General Electric is scrupulously careful with the 100-range and cable setup.

Fortunately, nothing more serious than a cut finger—from nervous nut-chopping—has ever occurred during the bake-off. But there is always a nurse on duty during the official functions, and a doctor is very readily available. If there is a threatened faint or two during the excitement and suspense of the awards luncheon, the sponsors are always prepared.

In co-sponsoring the bake-off and furnishing the ranges, General Electric has the safeguards of a many-faceted, balanced corporate insurance program, including commercial insurance, self-insurance and a knowing acceptance of certain hazards as recognizable business risks.

Workmen's compensation insurance is in effect during the manufacture and installation of the ranges and for any supervisory people the company may have present at the contest. The ranges themselves are subject to possible loss either at the exhibit or in the course of transportation to the event or from the bake-off site to the homes of their prize-winning owners.

Third party liability starts with the manufacturing of the ranges in Louisville and follows through the entire transportation cycle and during the installation and use of the equipment at the bake-off. The potential liability of General Electric for any injuries or damage resulting from the subsequent installation or use of the equipment follows through the entire cycle.

A smooth-running base of operations for the bake-off without breakdowns and delays is vouchsafed by the 78 years of engineering and loss prevention experience which Mutual Boiler and Machinery Insurance Company provides in its coverage for the Hilton Hotels. All the hotels' boilers, pressure vessels, air-conditioning equipment and electrical power systems are inspected by the company periodically. Further, as a policyholder, Hilton Hotels can call on the extensive facilities and expert inspection service of Mutual Boiler for advice and assistance whenever help is needed in achieving safe operation of insured equipment. In the event of accident to any of the insured equipment, Mutual Boiler's engineering staff works to expedite repairs.

Mutual Boiler's basic agreement for direct damage insurance on boilers and machinery provides six different types of coverage under the heads of direct damage, expediting expenses, damage to the property of others, bodily injuries (optional), defense of the insured, and automatic coverages. Indirect damage insurance in the form of use and occupancy, consequential coverage, and power interruption is also available by endorsement.

Insurance Safeguards Bake-Off Facilities

Even the best cooks were still operating with crude coal and wood stoves when Mutual Boiler was organized in 1877 to become the oldest mutual casualty insurance company in America. The 100 modern electric ranges on which the bake-off finalists will stake their reputations will be the more dependable for the engineering and inspection service which Mutual Boiler has put in on the hotels' generators, switchboards and transformers. Even with 100 electric ranges going at once, there are not likely to be any recipe flops because of electrical failures.

In its inspection and engineering service for loss prevention, Mutual Boiler employs the most modern of testing equipment.

It is entirely likely that this year's grand award winner may come up with a refinement on an old coal-stove-baked recipe. That was the case in the 1960 contest when Mrs. Schnuelle won the $25,000 on her dilly casserole bread.

All is still mystery about the identity of the 1961 winner, but it is a historic certainty that no "beautiful woman in the act of cooking . . . for someone she loves" ever stirred more emotions mixed with tears, laughter and fainting spells than will supercharge the awards ceremonies that gala day in Beverly Hills. ⊙

Commissioner Magnusson's division licenses 907 companies with assets of $128 billion and paying $9.5 million in revenue.

MAGNUSSON OF MINNESOTA

MINNESOTA was touched by the first Viking voyagers to these lands of outer space almost 600 years ago, according to their proof now perpetuated on the Kensington Runestone (1362) at Alexandria, Minnesota.

For proof of the integrity that is respected and demanded by the 3.5 million people now inhabiting the North Star State, Commissioner of Insurance Cyrus E. Magnusson submits that there has not been a failure in more than 15 years among the state's 907 insurance companies, 253 of which are domiciled there. Further, since his appointment as commissioner in April, 1959, it has never been necessary for him to conduct an official hearing questioning the conduct of any of the 22,000 licensed agents under his jurisdiction.

Assets of $131.5 million are shown by the 182 Minnesota-domiciled mutual property and casualty insurance companies, undergirding the state's development at home and on the world scene. Since the opening of the St. Lawrence Seaway, Duluth has been a developing international seaport. Net losses paid during a recent year by those 182 companies in protecting the value of life and property totaled more than $46.5 million.

Fishing and hunting occupied the exploring Vikings, but iron ore was to make the state world famous. In the few recent years since 1955 more than $1 billion have been invested in new processing facilities to provide a high grade blast furnace ore. From the soil, too, Minnesota developed Minneapolis into the world's largest cash grain market and became the home state of many great milling companies.

With almost exactly its one-fiftieth share of the U. S. population, Minnesota has 219,168 people employed in its many and varied manufacturing enterprises, earning salaries and wages of more than $1 billion a year. Agriculture has kept pace with the new science of agribusiness, attested by almost $1.5 billion a year in cash receipts from farming. Travel business to Minnesota's 10,000 lakes and other attractions is estimated at $325 million a year; Minnesotans themselves have more than 1.5 million automobiles, buses and trucks.

Commissioner Magnusson is incumbent of an office created in 1872 and now handling a business of almost $9.5 million a year in insurance, taxes, licenses and fees. He has a staff of 35 operating on an annual budget of $243,228. His appointment as commissioner expires February 1, 1965.

A native of Minnesota, Commissioner Magnusson spent most of his adult life in Two Harbors but left there in 1955 to become executive secretary to Governor Orville Freeman, now Secretary of Agriculture. He settled in Two Harbors after graduation from the University of Minnesota and remained there 25 years as a high school teacher of political science and history, basketball and football coach. He was president of the Minnesota State Coaches Association in 1949 and vice president of the Minnesota Federation of Teachers, 1948 to 1949.

Supplementing his teaching duties with business and civic affairs, he owned an insurance agency at Two Harbors, was mayor of the city for four terms and was elected president of the Two Harbors Community Health Center, of which he was a trustee from 1944 to 1951. ⊙

An open-pit mine on the Mesabi Range, 110 miles long, one to three miles wide, making Minnesota world famous for iron ore.